**Algebra 1 Name:**

**1.9 Warm Up Date:**

**Warm Up**

*Directions:* ***SIMPLIFY*** *the following picture by counting the total shapes.*

**Total Shapes:**

**8 + \_\_ + \_\_ + \_\_**

***Continue the DO NOW on the back of this page!***

*Directions: Write out the expressions using only addition or subtraction. Then simplify again. The first example has been done for you.*

|  |  |  |
| --- | --- | --- |
| **Problem** | **Write it out** | **How many?** |
| 2x + 3x | x + x + x + x + x | 5x |
| t + 5t |  |  |
| -p + 3p |  |  |
| 4p - p |  |  |
| 6s – 2s |  |  |

**Algebra 1 Name:**

**1.9 Lecture Notes Date:**

**Vocabulary**

**Combining Like Terms**

What makes two terms “like” each other? Why do we combine them?

*Circle the like terms in each expression*

2z + 5z + 4 7x2 + x2 + x3 -3xy + 4xy – 2x

2 – 4x + 17y + 5x – x2  3y + 5x3 – 12 + 17x + 3 23y35 + 7x – y35

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Steps for Like Terms: | **(1)** Change all subtraction to the “adding the opposite” | **(2)** Find one type of like term. | **(3)** Combine the like terms one by one. *Rule: Add the coefficients, keep the rest the same.* | **(4)** Repeat steps 2 and 3 until all like terms have been combined |

**Examples**

|  |  |
| --- | --- |
| 11 + 6x – x2 – x + 3x2 – 4 | -2x2 + 5 – 4x + 1 – 3x2 – -7 |

**Algebra 1 Name:**

**1.9 Classwork Date:**

**Combining Like Terms**

**Directions:** Simplify each expression by combining like terms.

|  |  |  |
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**Challenge Yourself! SIMPLIFY by combining the Like Terms**

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| --- | --- | --- | --- |
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**Algebra 1 Name:**

**1.9 Homework Date:**

**More Combining Like Terms**

**Part 1**

Label all the parts of the expression using your four vocabulary words.



**Part II**

Simplify each expression. Choose **8 problems** or do all of the problems for **extra credit**.

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| --- | --- |
| **Algebra 1 Name:**  **1.9 Exit Ticket Date:**  Simplify the expressions by combining like terms.  **1.**  **2.** | **Algebra 1 Name:**  **1.9 Exit Ticket Date:**  Simplify the expressions by combining like terms.  **1.**  **2.** |
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